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WHAT IS CLAIMED IS:

1. In a fluidized bed coater having a product container opening upwardly into an expansion chamber and downwardly  
5 into a lower plenum chamber through an air distribution plate/screen having openings formed therethrough for upward air flow from said lower plenum chamber into said product container, said product container including a substantially cylindrical partition spaced above said air  
10 distribution plate/screen for dividing said product container into an inner upbed area and an outer downbed area, and an upwardly discharging spray nozzle mounted substantially centrally within said cylindrical partition, the improvement comprising an upstanding  
15 cylindrical inner partition mounted adjacent to said air distribution plate/screen, the upper end of said inner partition being open and disposed at least as high as the upper extremity of said spray nozzle, the lower end of said inner partition being open for receiving air from  
20 said lower plenum chamber passing through said air distribution plate/screen whereby at least the initial spray pattern developed by the spray nozzle is protected from the entry of particles moving upwardly through said

upbed.

2. The coater of claim 1 wherein said cylindrical inner partition is connected with said air distribution  
5 plate/screen by a support means for mounting and axially adjusting said inner partition with respect to said air distribution plate/screen.

3. The coater of claim 2, wherein said support means  
10 includes means for maintaining the lower end of said inner partition generally sealed relative to said air distribution plate/screen throughout axial adjustment of said inner partition relative to said air distribution plate/screen.

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4. The coater of claim 2 wherein said support means includes a cylindrical collar projecting upwardly from said air distribution plate/screen, the lower end of said inner partition being adjustably telescoped into said  
20 collar.

5. In a fluidized bed coater having a product container opening upwardly into an expansion chamber and downwardly

into a lower plenum chamber through an air distribution plate/screen having openings formed therethrough for upward air flow from said lower plenum chamber into said product container, said product container including a substantially cylindrical partition spaced above said air distribution plate/screen for defining an inner upbed area and an outer downbed area, and an upwardly discharging spray nozzle mounted substantially centrally within said cylindrical partition, the improvement comprising shielding means positioned adjacent said spray nozzle for shielding the initial spray pattern developed by said nozzle against the entrance of particles moving upwardly through the upbed.

6. In a fluidized bed coater having a product container opening inwardly into an expansion chamber and downwardly into a lower plenum chamber through an air distribution plate/screen having openings formed therethrough for upward air flow from said lower plenum chamber into said product container, said product container including an upwardly discharging spray nozzle, the improvement comprising means positioned adjacent said spray nozzle for shielding the initial spray pattern developed by said

nozzle against the entrance of particles moving upwardly through the fluidized bed.

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sub B1 7. In a fluidized bed processor having a fluidizing gas source and a discharging spray nozzle within said processor, the improvement comprising shielding means adjacent said spray nozzle for shielding the initial spray pattern developed by said nozzle against the entrance of particles moving through the fluidized bed.

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8. The processor of claim 7 wherein said shielding means comprises a cylindrical partition surrounding said spray nozzle, one end of said cylindrical partition disposed at a level adjacent the outermost extremity of said spray nozzle.

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9. The processor of claim 8 wherein the opposite end of said cylindrical partition is positioned to receive fluidizing gas from said fluidizing gas source.

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~~10. A method for coating product in a fluidized bed having a product container section opening upwardly into an expansion chamber and downwardly into a lower plenum~~

chamber through a generally horizontally disposed air distribution plate/screen having openings formed therethrough for upward air flow from said lower plenum chamber into said product container section, said product container section including a substantially cylindrical partition spaced above said air distribution plate/screen for dividing said product container section into an inner upbed area and an outer downbed area, and an upwardly discharging spray nozzle mounted substantially centrally within said cylindrical partition, said method including the steps of positioning a cylindrical inner partition adjacent said distribution plate/screen and extending upwardly therefrom, surrounding said nozzle, and projecting upwardly to a level at least equal in height to said nozzle, and passing air upwardly through said air distribution plate/screen and through said cylindrical inner partition about said nozzle to shield the initial spray pattern developed by said nozzle against the entrance of particles moving upwardly through said upbed.

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11. The method of reducing the processing time of a granulator/coater of the fluidized bed type including a product container section opening upwardly into an upper

expansion chamber and downwardly into a lower plenum chamber through a generally horizontal air distribution plate/screen having openings formed therethrough for upward air flow from said lower plenum chamber into said product container section and wherein said product container section contains an upright cylindrical partition supported centrally therein spaced above said air distribution plate/screen and dividing said product container section into an inner upbed and an outer downbed, and an upwardly discharging spray nozzle mounted centrally with respect to said upbed in a lower portion thereof, said method including the steps of forming a radially confined and shielded column of air to flow upwardly about said nozzle from said air distribution plate/screen and to be freely discharged into said upbed at an elevation generally vertically registered with the upper extremity of said nozzle.

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